

Serial Nr.: 10/724,741
Art Unit: 2879

03250-UPL

AMENDMENTS TO THE DRAWINGS:

FIGs. 3A, 3B and 3C are amended to include a legend --Prior Art-- as marked in the attached annotated sheets of drawings.

FIG. 4A is amended to correct the element referred to by the reference number "306" as marked in the attached annotated sheet of drawing so as to be consistent with FIGs. 4B-4C and the description in the specification.

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Art Unit: 2879

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REMARKS

In the Office Action, claims 1-9 are rejected under 35 U.S.C. §112 as being indefinite, claims 1-5, 8 and 9 are rejected under 35 U.S.C. §102(e) as being anticipated by Lee, claims 6-7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lee.

Claims 1-9 are now cancelled. New claims 10 and 11 are presented to clearly define the invention in a patentable way to overcome the rejections under 35 U.S.C. §112, 35 U.S.C. §102(e) and 35 U.S.C. §103(a). More specifically, the independent claim 10 now includes the limitation that a rectangular shaped recessed area is formed above said substrate on each side of every electronic emitter between two adjacent gate electrodes. None of the cited prior arts have disclosed, suggested or anticipated such a limitation.

The gist of the instant invention is to provide a plurality of parallel gate electrodes so that recessed areas are formed on the sides of each electron emitter between two dielectric strips as shown in FIG. 4A. As described in paragraph [0026] of the specification, with such a field emission structure, there are no gates on the two sides of each electron emitter between two gate electrodes and therefore the electron beam emitted does not diffuse as illustrated in FIG. 4C.

With regard to the art of Lee, the electron emitters (43) are circular shaped and there are no dielectric strips formed substantially perpendicularly to said plurality cathode electrodes as can be seen from FIGs. 1-4 of Lee's disclosure. The electrode gates are not

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Art Unit: 2879

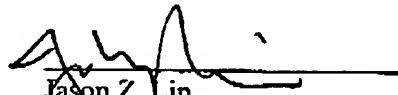
03250-UPL

formed on the dielectric strips either. As a result, no rectangular shaped recessed areas can be formed on the sides of electron emitters between two gate electrodes. The advantage of the instant invention is not anticipated and can not be realized by the art of Lee.

From the foregoing discussion, it is clear that the instant invention differs from the cited prior arts. The physical difference results in different effects and is not obvious. The new base claim 10 has overcome the rejections under 35 U.S.C. §112, 35 U.S.C. §102(e) and 35 U.S.C. §103(a) and should be patentable. By virtue of dependency, claim 11 should also be patentable. FIGs. 3A-3C and 4A have been amended as shown in the attached drawings submitted by FAX for approval. Replacement sheets of the drawings will be submitted by post office mail to ensure adequate quality for patent publication after the application is allowed. The specification has been amended to correct a few editorial and grammatical errors. Prompt and favorable reconsideration of the application is respectfully solicited.

Please note that the power of attorney of the application has been transferred to the undersigned as shown in the attached documents. Please send all future correspondence to the undersigned at Customer No. 33,804.

Respectfully submitted,


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